

NEW FOSSIL SPECIES OF THE GENUS EPITONIUM FROM  
SOUTH CAROLINA

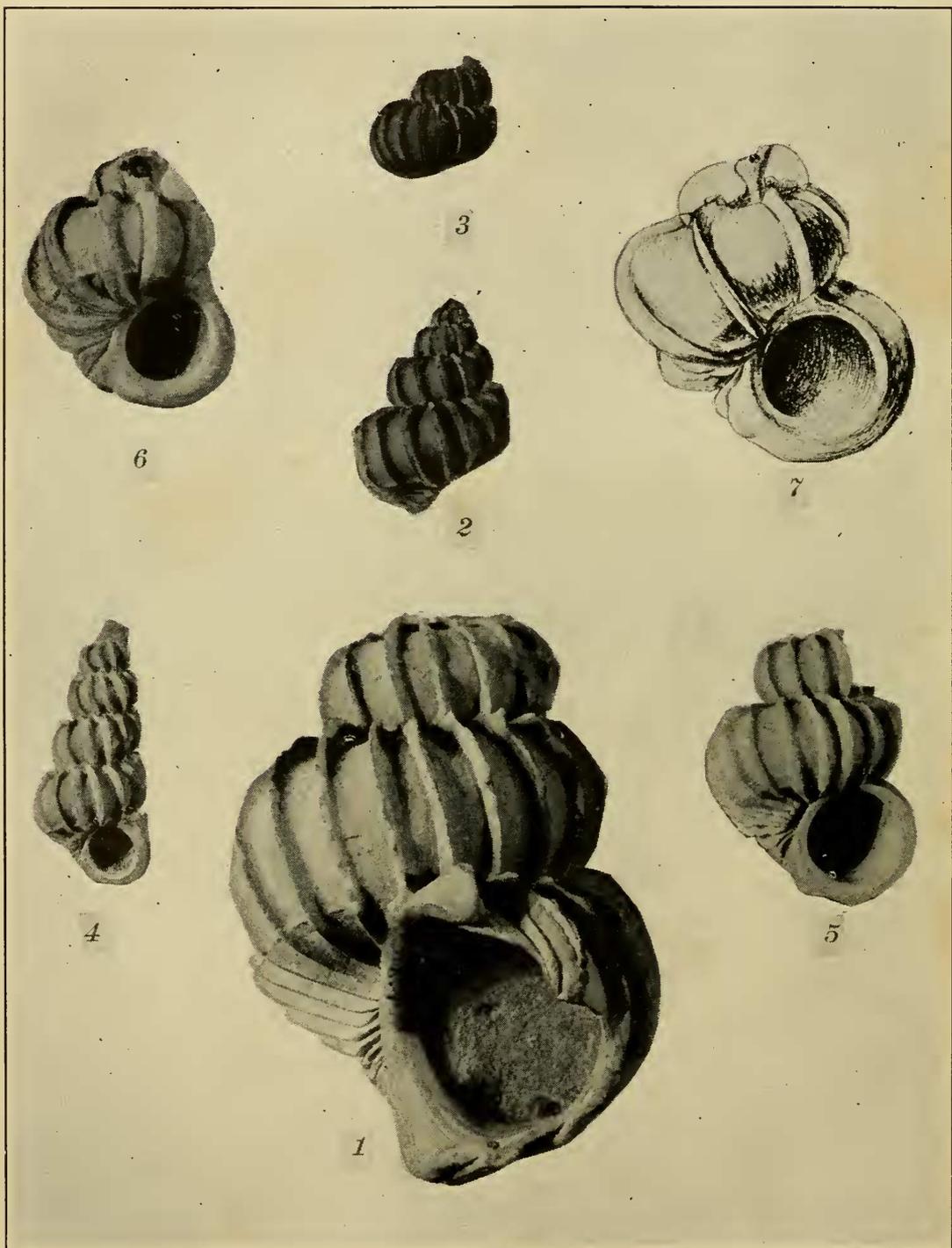
BY CHARLES W. JOHNSON

While visiting Charleston, S. C., during the latter part of March and early April, I spent some time in going over the collection of shells in the Charleston Museum. Among the species of special interest was an unusually large fossil *Epitonium*, the size of which was surprising, for I had not heretofore seen a species larger than the recent "precious wentletrap" (*Epitonium pretiosum* L.). The largest specimen represents about two and a half whorls, the more apical whorls missing. That it represented a new species was quite evident unless perchance that a species had been previously based on a young specimen. On my way north I stopped in Washington and through the kindness of the officials in the National Museum, found two specimens of this species undescribed, one of which practically represented four of the spiral whorls of this large species. The two specimens will therefore be considered cotypes and described as though one.

## EPITONIUM CHAMBERLAINI sp. nov. Pl. 1, figs. 1, 2.

Whorls very convex, suture deep, body whorl with nineteen large narrow, lamelliform costae, which are slightly reflexed at suture, penultimate whorl with seventeen costae. The apical section has thirteen costae on the lower whorl, ten on the upper and eleven on each of the two intermediate whorls. On the lower part of the body whorl at the sutural line is a raised spiral ridge between the costae becoming obsolete toward the apex. Lip expanded at the base of the columella. The exact length of the shell can only be estimated. The large basal section is 65 mm. and the apical section 25 mm. in length. That there is part of a whorl missing between the two sections is quite evident as the distance between the sutures in the upper whorl of the larger part is about 11 mm. and in the lower whorl of the smaller section 9 mm. Making allowance for the broken costae at the base of the large sec-





1 and 2. *Epitonium chamberlaini* sp. n. 3. *E. raveneli* sp. n. 4. *E. charlestonensis* sp. n. 5. *E. cooperensis* sp. n. 6. *E. subexpansum* sp. n. 7. *E. mazyckii* Dall.

tion and the apex which probably consisted of another whorl in addition to the protoconch, it is safe to say, that this large species when living was about 100 mm. in length.

The larger of the cotypes representing the basal part, figure 1 (No. 30,112.1 Charleston Mus.) was collected by Mr. E. Burnham Chamberlain of The Charleston Museum, May 31, 1930, near Charleston, S. C., about a mile and a half above the Etiwan Fertilizer works on the Cooper River, on a small island, thrown up by dredging about ten years ago. The apical portion representing the other cotype (fig. 2) is in the U. S. National Museum, labeled "Navy Yard, Charleston, Sloan 444," Station No. 5531, was placed in the Eocene. A second specimen from the same locality, Station No. 4832, consists of a small fragment of half of two whorls. A third specimen, Station No. 4559, from Marl pit at Ingleside Station on railroad from Charleston to Summerville, nine miles from Charleston, S. C., Earl Sloan, coll. 1907 (Oligocene?). This specimen is 24 mm. in length, 20 mm. in diameter with 16 costae to a whorl.

The following three imperfect specimens from the Eocene, Ashley River (Dr. Gibbes) are in the Edmund Ravenel collection, Charleston Museum No. 1118. One shows two whorls with a part of the shell, poorly preserved, covering the internal cast. Length about 52 mm., diameter 38 mm. A second specimen consists of one whorl and a half, about 36 mm. in length and 29 mm. in diameter, with fourteen costae to a whorl. Of the third specimen there is only a fragment of a whorl showing five costae, length 20 mm.

On May 9, 1931, Mr. Chamberlain found 18 fragments of this species at the same locality where he had found the large specimen.

#### EPITONIUM RAVENELI sp. nov. Pl. 1, fig. 3.

This resembles somewhat the young of the preceding species, but the costae are round on the edge not narrow and lamelliform, with only a slight reflection near the suture. The body whorl has sixteen and the penultimate whorl four-

teen costae; on the lower part of the body whorl at the sutural line is a raised spiral ridge between the costae; fine spiral striae are present between the costae over the entire shell; aperture round, lip expanded at the base of the columella, shell light brown. Length of the two whorls 15 mm.

It is said to be Eocene and is described from a specimen in the Edmund Ravenel collection, No. [1130] in The Charleston Museum. Collected at St. Johns, B[erkeley], S. C.

EPITONIUM CHARLESTONENSIS sp. nov. Pl. 1, fig. 4.

Shell elongate, moderately slender, whorls convex the costae prominent, angulate and slightly reflexed below the suture, body whorl with twelve the others with twelve and thirteen costae, the spiral ridge between the costae at the sutural line prominent and between the costae fine spiral raised lines. The type which consists of four and part of a fifth whorl measures 30 mm. Type in the Charleston Museum.

The type and two similar specimens were collected by Mr. Chamberlain, May 9, 1931, on the same small island from which the large cotype of *E. chamberlaini* was taken. One of the specimens shows slightly more prominent spiral lines than the type.

EPITONIUM (ASPEROSCALA) COOPERENSIS sp. nov. Pl. 1, fig. 5.

Whorls very convex; body and penultimate whorls each with fifteen thin lamelliform costae; the usual raised ridge at the sutural line obsolete, above this line the prominent raised spiral lines alternate large and small, sometimes showing still smaller lines between these; below the sutural line the raised lines between the costae are even and regular in size; six of the costae do not reach the columellar lip (probably abnormal). Length of the two whorls 31 mm.

One specimen collected by Mr. Chamberlain, May 9, 1931, on the same small island on the Cooper River from which the large cotype of *E. chamberlaini* was taken. Type in the Charleston Museum.